Workplace and School Exposure

Additional education and resources should be provided to schools in order to create and maintain healthy learning environments for all children.

There is increasing concern and research regarding the possible role of environmental and occupational exposures in the development and exacerbation of asthma.

According to the 2005 Behavioral Risk Factor Surveillance System, 6.1% of Vermonters with asthma were told by a health professional that their asthma was related to a job they have had. 6.4% of Vermonters with asthma told a health professional that their asthma was related to a job they had had.

School-air quality: Of the 17 schools assessed in the Vermont Child Health Improvement Project's (VCHIP) Provider-School Nurse Coordination Project, seven (41%) had a written Indoor Air Quality management plan. Of these, 3 school plans included the reduction or elimination of allergens and irritants that exacerbate asthma (mold, pets, strong odors, dust mites, cockroaches).

ENVISION: Efforts to improve environmental health are also carried out through the "*ENVISION*—Promoting Healthy School Environments" program. ENVISION is a direct result of the passing of the Act 125 Legislation which directs the Commissioners' of Health, of Education, and of Buildings and General Services to:

- create and maintain a clearinghouse of environmental health information on the Department of Health's website
- provide technical assistance to schools
- provide workshops on environmental health for school personnel
- to develop a model environmental health plan and policy
- to encourage and assist schools in developing programs that will enable them to address and prevent environmental health issues through the voluntary participation of schools.

DATA TABLES

Table 9. Asthma related to work place exposure - Vermont adult residents, 2005.

	% (95% CI)
Ever told by health professional asthma related to job	6.1 (4.4-8.3)
Ever told health professional asthma related to job	6.4 (4.7-8.7)

Data source: BRFSS
Age-adjusted rates

Cigarette Smoking

Programs must work to decrease smoking rates in Vermont, particularly among students, with 1 in 10 middle school and 1 in 5 high school students currently smoking.

Smoking can exacerbate existing asthma, resulting in increased frequency and severity of symptoms.

Adults: As shown in Figure 10, rates of smoking are similar in people with and without asthma. Rates over the past 5 years have remained relatively stable.

Figure 8. Current smokers by asthma status - Vermont adult residents, 2001-2005.

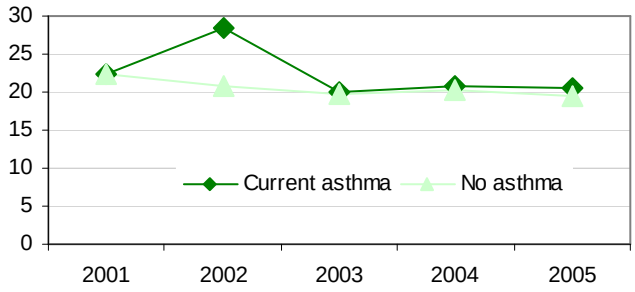
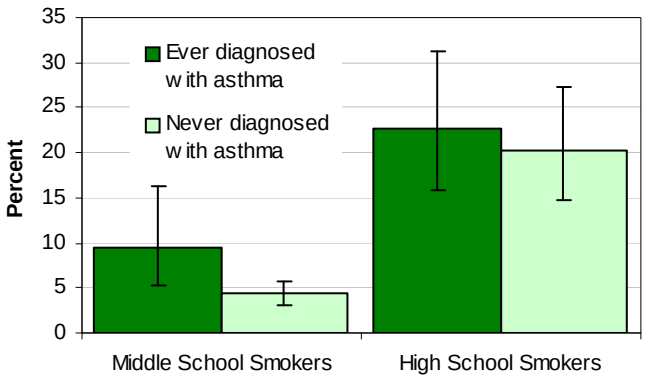


Figure 9. Current smoking status by lifetime asthma diagnosis - Vermont middle and high School students, 2004.



Youth: Although not statistically significant, the prevalence of current smokers among middle and high school students is greater in those with asthma compared to those without asthma (Figure 10). Twice as many middle school students with asthma smoke compared to those without asthma (9.4% compared to 4.3%).

DATA TABLES

Table 10. Current smokers by asthma status - Vermont adult residents, 2001-2005.

	Total current smokers	People with asthma who are current smokers	People without asthma who are current smokers
Adults	**% (95% CI)**	**% (95% CI)**	**% (95% CI)**
2001	22.4 (21.0-23.8)	22.3 (17.9-27.4)	22.4 (21.0-24.0)
2002	21.4 (20.0-22.9)	28.5 (23.8-33.7)	20.7 (19.2-22.2)
2003	19.8 (18.3-21.3)	20.1 (16.1-24.8)	19.8 (18.3-21.4)
2004	20.2 (19.0-21.4)	20.7 (17.1-24.9)	20.2 (18.9-21.5)
2005	19.6 (18.4-20.9)	20.6 (16.7-25.2)	19.4 (18.2-20.7)
Youth			
HS - 2004	22.4 (17.1-28.8)	22.6 (15.8-31.2)	20.3 (14.8-27.3)
MS - 2004	5.8 (4.4-7.8)	9.4 (5.2-16.3)	4.3 (3.1-5.8)

Data source: BRFSS (Adults), YHS (youth)
Age-adjusted rates (Adults), Crude (youth)

Secondhand Smoke Exposure

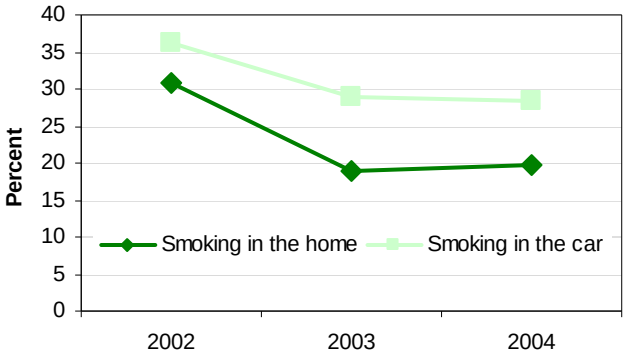
Vermont should continue its efforts in increasing awareness of the dangers of secondhand smoke and in reducing exposure to second-hand smoke, particularly among those with asthma.

Exposure to secondhand smoke can exacerbate existing asthma, resulting in increased frequency and severity of symptoms.

As shown in Figure 11, overall rates of exposure to secondhand smoke have decreased between 2002 and 2004 through combined efforts of the tobacco and asthma prevention programs.

Adults: However, Vermonters with asthma report 20-25% higher rates of exposure to secondhand smoke in their homes and cars than people without asthma.

Figure 10. Exposure to secondhand smoke in past 7 days – Vermont adult residents with asthma, 2002-2004.



- 19.8% of Vermonters with asthma reported exposure to smoke in the home versus 16.0% Vermonters without asthma
- 29.4% of Vermonters with asthma reported exposure to smoke in the car versus 21.0% of Vermonters without asthma.

Youth: Of particular concern is secondhand smoke exposure in children, as there is evidence that this can promote the development of asthma. The 2004 Adult Tobacco Survey reports:

- 81.7% of Vermont households with children prohibit smoking in their home, and
- 90.4% of Vermonters with children prohibit smoking in their car.

VCHIP's Provider-School Nurse Coordination Project provides data on the number of schools with smoke-free policies. Of the 17 schools assessed, all but one of the 17 schools are smoke-free at all times, including during school-sponsored sporting events.

DATA TABLES

Table 11. Exposure to secondhand smoke in the home in past 7 days by asthma status – Vermont adult residents, 2002-2004.

	Smoking in the home*		Smoking in the car**	
	With asthma	Without asthma	With asthma	Without asthma
2002	30.9%	24.6%	36.3%	25.1%
2003	19.0%	18.1%	28.9%	23.3%
2004	19.8%	16.0%	28.4%	21.0%

*Smoking in the home is defined as those that reported that on at least 1 of the last 7 days someone smoked in their home.
**Smoking in the car is defined as those that reported being in a car with someone who was smoking in the last 7 days.
Data source: ATS
Crude rates